INCH-POUND

MIL T-27/163C
20 April 1993
SUPERSEDING
MIL-T-27/163B
8 April 1983

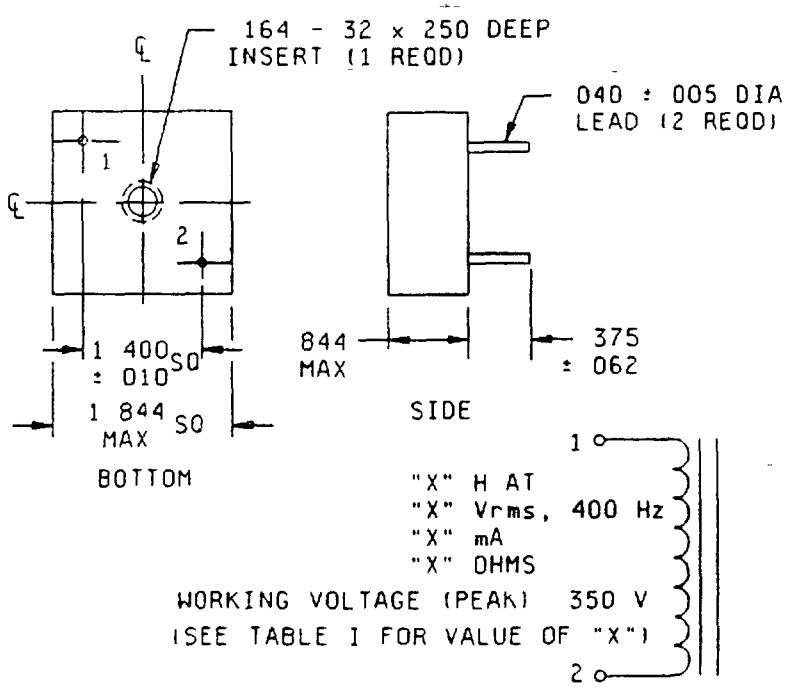
MILITARY SPECIFICATION SHEET

TRANSFORMERS AND INDUCTORS (AUDIO, POWER AND HIGH-POWER PULSE), INDUCTORS, AUDIO FREQUENCY HIGH Q, TF5R20ZZ

(C) Inactive for new design after the date of this specification

This specification is approved for use by all Departments and Agencies of the Department of Defense

The requirements for acquiring the product described herein shall consist of this specification sheet and the issue of the following specification listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) specified in the solicitation MIL-T-27



CIRCUIT DIAGRAM AND MARKING

FIGURE 1 Dimensions and configurations

(C) denotes changes

Inches	mm
005	0 13
010	0 25
.040	1.02
.062	1 57
.164	4 17
250	6 35
375	9 32
844	21 44
1 400	35 56
1 844	46 84

NOTES
1. Dimensions are in inches
2. Metric equivalents are given for general information only
3. Marking shall be on the side of the case opposite terminal pins
4. Electrical values shall be marked as specified in table I as applicable
5. Insert is located on bottom of the inductor with the terminals

FIGURE 1 Dimensions and configurations - Continued

REQUIREMENTS (When numbers in parentheses, i e , (1-2) are used, they indicate the winding and the extreme terminals of the windings)

Electrical ratings

Working voltage (peak) 350 volts

Temperature coefficient (-55°C to +105°C) ±1 5 percent

Design and construction

Dimensions and configuration See figure 1

Case Encapsulated

Material Epoxy

Terminals Type N-4, tin-lead plated, in accordance with MIL-STD-1276

Diameter .040 inch, ± 005
Length. .375 inch, ±.062

Weight 170 grams, maximum

Operating temperature range -55°C to +105°C.

Terminal strength MIL-STD-202, method 211, test condition A, 2 pounds

TABLE I Electrical ratings

Dash no	Inductance mH ±1% (1-2)	Current 1/ mA (1-2) (max)	Voltage V rms (1-2)	DC resistance ohms (max) (1-2)	Quality factor	
					(Minimum)	Test condition
01	0 1	60	1 at 400 Hz	4 2	210	1 V rms 3 kHz
02	0 5	25	1 at 400 Hz	23	185	1 V rms 3 kHz
03	1 0	18	1 at 400 Hz	43	185	1 V rms 3 kHz
04	2 0	12	1 at 400 Hz	92	140	1 V rms 2 kHz
05	5 0	8	1 at 400 Hz	240	120	1 V rms 1 5 kHz
06	10 0	6	1 at 400 Hz	440	95	1 V rms 1 kHz

1/ The amount of dc current that will reduce the inductance a maximum of 7 percent

Vibration (high frequency) MIL-STD-202, method 204

Dielectric withstanding voltage (at sea level) 1,000 V rms

Electrical characteristics

Inductance The inductance in table I is measured with 1 0 V rms, 400 Hz across (1-2) and) A dc applied to (1-2)

(C) Quality assurance provisions

Qualification inspection Not applicable for this specification sheet

Quality conformance inspection Groups A and B tests of MIL-T-27 shall be applicable

Marking location See figure 1

Part or Identifying Number (PIN) M27/163-(dash number from table I)

CONCLUDING MATERIAL

Custodians
Army - ER
Navy - EC
Air Force - 85

Review activities
Army - AR
Navy - OS
Air Force - 17, 99
DLA - ES

User activities
Army - WC
Navy - AS, MC
Air Force - 19

Preparing activity
Army - ER

Agent
DLA - ES

(Project 5950-0815-14)